

**CLAIMS**

1. (Previously Presented) A computerized method for creating test item models and generating test item variants comprising the steps of:  
obtaining a test item;  
creating a test item model by:  
    identifying elements of the test item to be variabilized,  
    variabilizing the elements to create variables, and  
    defining the variables; and  
generating a test item variant of the test item by assigning values to the variables using a simultaneous constraint solver, wherein the simultaneous constraint solver resolves a plurality of constraints pertaining to the variables.
2. (Previously Presented) The method according to claim 1, wherein said model creation further comprises specifying constraints that define a relationship among the variables.
3. (Original) The method according to claim 2 further comprising the step of accepting and retrievably storing the test item variant.
4. (Original) The method according to claim 3 further comprising the step of accepting and retrievably storing the test item model.
5. (Previously Presented) A computerized method for generating test item variants, the method comprising:  
identifying elements of a test item or a test item model to be variabilized;  
variabilizing the identified elements;  
defining the variables;  
specifying constraints for the variables;  
using a simultaneous constraint solver to determine values for the variables based on the constraints; and  
generating a test item variant with the determined values.

6-12. (Canceled).

13. (Previously Presented) A computerized method for generating test item variants from test item models comprising:  
retrievably storing test item models;  
selecting a test item model;  
simultaneously solving test item model constraints pertaining to variables of the selected test item model and generating test item solutions based on the selected test item model; and  
displaying, accepting and retrievably storing valid test item solutions.

14. (Previously Presented) The computerized method of claim 13 wherein the step of retrievably storing test item models comprises:

- a. obtaining a test item;
- b. identifying elements of the test item to be variabilized;
- c. variabilizing the elements to create the variables;
- d. defining the variables; and
- e. accepting the variabilized test item with defined variables as a test item model.

15. (Previously Presented) The computerized method of claim 13 further comprising specifying constraints that define the relationship among the variables.

16. (Original) The computerized method of claim 14 further comprising the steps of displaying and retrievably storing the accepted test item model.

17. (Original) The computerized method of claim 14 wherein the test item model constraints are simultaneously solved using PROLOG IV and Test Creation Assistant constraint language.

18. (Canceled).

19. (Original) The computerized method of claim 14 wherein variables can be defined by values which are variables.

20. (Original) The computerized method of claim 15 wherein the variables are new variables for which new constraints are defined as needed.